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ABSTRACT

A study was made to determine the present state of book storage in large North American academic libraries. A letter was sent to every academic library in the Association of Research Libraries (ARL) to inquire if they engaged in book storage. From the 35 which answered affirmatively, 15 were selected for visitation: the libraries of the universities: California at Berkeley, Chicago, Connecticut, Cornell, Harvard, Kansas, Michigan, Minnesota, Princeton, Purdue, Rice, Texas, Tulane, Wayne State, and Yale. Results indicated that book storage is viewed with distaste, because it inhibits free access to materials and because the costs of weeding, changing library records, and maintaining a storage facility mask its economic advantages. Two alternatives may be available: the conversion of library materials to a less bulky form or the reduction of individual collections through increased interlibrary cooperation. Although review of the policies and practices of the 15 libraries revealed no firm guidelines for book storage, general suggestions were made for the size, location, and design of a storage facility; record keeping; weeding policies; and retrieval for patrons. (SL)

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BOOK STORAGE IN ACADEMIC LIBRARIES

A report submitted to
The Council on Library Resources

by

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Vancouver, Canada

1974

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INTRODUCTION

This survey* of the present state of book storage in large North American academic libraries was undertaken in order to provide some general answers to a number of broad questions. The subject of book storage has been treated in a number of writings, largely dealing either with theoretical aspects of achieving maximal compactness and economy in storage or with details of specific storage practices. There is, however, a paucity of literature dealing with the actual situation today, especially as regards these broad questions:

- How prevalent is storage today, specifically, the storage of regularly-catalogued books and serials?
- What types of physical accommodation are used for storage?
- What types of storage records are considered necessary?
- What principles govern the selection of material for storage?
- To what extent do user needs, either demonstrated or assumed, influence storage arrangements?
- How is storage approached; i.e., as an ad hoc adaptation to a temporary problem or as a planned development of a rational arrangement of resources?
- How does storage affect other library operations and relations with students, faculty, and administration?
- What alternatives to storage are envisioned or used?

Answers to these general questions seemed best obtained by visits to libraries engaged in storage and interviews with librarians involved in storage operations. Accordingly, letters were sent to every ARL academic library in which the fact of their engagement in book storage was solicited as well as their willingness to receive the surveyor and answer his questions. From the list of libraries answering affirmatively in both cases, a sample of libraries to visit was selected. The sampling was haphazard rather than random. Considerations of scheduling, geography, and other factors resulted in visits made to fifteen libraries, representing a significant diversity in size, age, type of support, location, and storage patterns. These libraries were those of the University of California (Berkeley), University of Chicago, University of Connecticut, Cornell University, Harvard University, University of Kansas, University of Michigan, University of Minnesota, Princeton University, Purdue University, Rice University, University of Texas, Tulane University, Wayne State University, and Yale University. The visits were made during the months of April and May, 1973. An attempt was made to interview, in a very loosely-structured manner, the director of the library and other librarians involved in the planning or operation of storage facilities. No special attempt was made to talk with other persons directly or indirectly

* The author is grateful for the award of a Council on Library Resources Fellowship for 1972/73, during which this survey was made.

concerned, such as students, faculty members, or administrative officers, although opportunities presented themselves on occasion, and were seized.

It is clearly inappropriate, in a general survey of this type, to identify specific ideas, attitudes, or procedures with specific institutions or persons, and such identification will be avoided unless they add something useful, or unless their avoidance obscures understanding. Indeed, it is difficult at this stage to attribute accurately hundreds of informal statements made by 60 or 70 people with any degree of confidence. With almost no exception the librarians interviewed were candid, forthcoming hospitable, and indulgent. I thank them all.

Similarly, in discussing specific details of procedures no estimation of their relative frequency of use or acceptance can be given. As earlier stated, the sample of storing libraries was not a random sample. This report is to be read only as one person's impressions of contemporary storage practices and theories, and his reactions thereto.

BACKGROUND

That spectacular increases in the rate of book and serial acquisition by large academic libraries have taken place during the last decades is a statement requiring little quantitative confirmation, except by way of an indication of magnitudes. Thirty-seven major North American academic libraries, for which records are available for the entire period, and all now members of ARL, added 12.6 million volumes to their aggregate holdings between 1940 and 1950, 17.0 million volumes in the next decade, and 31.3 million volumes between 1960 and 1970. This last figure is larger than the aggregate of reported holdings of these libraries in 1940, or, put another way, these 37 libraries added, in the decade of the sixties, more volumes than they had accumulated during their entire existence up to 1940! It should be pointed out that among these 37 libraries are the 25 largest academic libraries in North America, whose growth rates, on the whole, have been less spectacular than those of younger and smaller institutions.

This phenomenal growth has taken place, moreover, during a period in which other developments have taken place which should, theoretically, have had a depressing effect on the acquisition of books and serials. Microforms have become a major category of acquisition; during fiscal 1969/70 and 1970/71 ARL libraries added 18.8 million volumes and 14.6 million microform units. At the same time there have been significant increases in the number of new and improved bibliographical instruments for the location of library materials for interlibrary borrowing in lieu of acquisition. Sharing plans of one kind or another have also continued to proliferate during this period.

The austerity of the seventies will undoubtedly reduce the acceleration of library acquisition rates, but the rates themselves will likely continue at impressive levels. Net additions to ARL academic libraries have dropped in 1970/71, ~~and~~ 1971/72 ^ and 1972/73 from the high point reached

in fiscal 1969/70, but only slightly*.

The physical capacities of libraries and library systems have, mercifully, shown large increases also. most academic libraries, during the last two affluent decades, have increased their volume capacity by erection of new main library buildings, main library additions, stack extensions, new undergraduate libraries, and new or expanded branch libraries or departmental reading rooms in non-library buildings. Some few have built special storage libraries or occupied existing buildings for book storage purposes.

In general, growth of the library physical plant has been only palliative; few libraries are designed to accommodate increases of the order of 100,000-150,000 volumes per year for very long. And there are clear signs that university capital expenditures for library buildings will drop sharply in the next few years, if only as a reflection of general university financial cutbacks.

University librarians have long felt the responsibility of acquiring all the library materials necessary to support the teaching and research objectives of their institutions (broadly interpreted), and have worked toward that ideal, constrained only by the realities of available funds and manpower. At the same time it has long been realized that not all the books, serials, and other materials in an academic library get anywhere near the same amount of use. Not a few librarians have realized that substantial portions of their collections get, practically speaking, no use at all. The idea that little-used books and serials might be removed from the main shelving sequence of a library and stored in some condition of secondary accessibility was made in print as long ago as 1893, and by 1903 a well-developed proposal for a cooperative storage library for the Harvard College library and some other Massachusetts institutions was put forward by the librarian of Harvard**. This plan was brought to fruition with the formation of the New England Deposit Library in 1941. Many other storage facilities, both cooperative and individual, have been put into operation since that date. It is probably correct to say that the storage response to library growth problems has been in the main a large-library response - smaller libraries have been more likely to enlarge their buildings or erect new ones. It is also probably true to say that book storage has not been adopted with any great enthusiasm anywhere. The reasons for this lack of enthusiasm are various, and include practical, psychological, and administrative aspects - all of considerable influence. They will be discussed later.

*Aggregate net additions: 1968/69 - 7.2 million volumes; 1969/70 7.5 million volumes; 1970/71 - 7.4 million volumes; 1971/72 - 7.1 million volumes; and 1972/73 - 7.1 million volumes. (From ARL Academic Library Statistics 1968/69 - 1972/73. Totals for 1970/71 to 1972/73 corrected to exclude Rice and Howard Universities, not represented in the 1968/69 - 1969/70 totals.)

**Lane, William C. "The Treatment of Books According to the Amount of their Use." Library Journal 28 (July, 1903) p.9.

THE PRESENT SITUATION

Definition

The word "storage", in its library context, is susceptible to various interpretations. Here used it signifies any removal of conventionally-catalogued or processed units from their normal location in the stack sequence to a location in which accessibility for consultation or borrowing is reduced in the interests of increasing stack space.

So defined, storage does not include any treatment of unprocessed or partially processed materials such as large gift collections, bulk purchases, or cataloguing arrearages. Removal of units to locations such as reference areas, reserve book rooms, branch libraries, etc., obviously does not qualify as storage by virtue of the generally enhanced availability for consultation in such areas. The term "book" will here be used to refer to stored materials in general unless the distinction between monograph and serial is explicit and necessary.

Prevalence

The initial query to ARL academic libraries in March 1973 revealed that thirty-five were storing significant portions of their holdings at that time. Another thirteen had not yet reached the point of having to store books, but stated that the need was imminent. Twenty-five libraries had no immediate space problems necessitating storage treatment, and no response was obtained from three libraries.

Among those libraries which were not yet storing books but recognized that the need for so doing was not long in the future, the large majority reported that storage would be necessary within the next two, three, or five years. Several reported that storage was not yet upon them only because completion and occupation of new library units in the recent past had allowed them, by way of shifting their collections, to avert the inevitable for a few years more.

The twenty-five libraries which reported no present or immediately foreseeable storage problems usually gave no further details. One, however, interestingly enough, confessed to an embarrassment of riches, having so much space for books that tenant enclaves had been encouraged within the library, and division of the book collection into regular and over-size categories had not yet proven necessary. Such situations appear to be rare. Among the three libraries which did not respond to the initial query, at least one is known to store books.

Storage, therefore, appears to be a common necessity among ARL academic libraries, with, practically speaking, two out of every three libraries either storing books or faced with that necessity within a short time.

Location of Stored Collections

Books and serial volumes removed from their normal position in the stacks of the main library or any other library unit, are stored in a variety of locations. Four of the libraries visited had the use of separate library buildings erected primarily or entirely for storage purposes. These buildings were always in a peripheral location - off-campus, on a satellite campus, or at the edge of the main campus. Other libraries use separate structures such as warehouses adapted for library storage purposes. These also are in peripheral locations. The remaining libraries use some type of on-campus location; an outgrown main library building, the basement or attic of a main or branch library in current use, or some part of another campus building, usually a basement or attic.

The physical quarters themselves and their furnishings exhibit a very wide variety. The separate storage library may be anything from a bare, dilapidated hut originally built for some other (usually humble) function, entirely without climatic control of any sort, to an elegant, air-conditioned building specifically designed for library storage. The bookstack may be anything from hastily constructed wooden shelving, or rickety ancient wooden stacks to modern, flexible, well-engineered, industrial shelving. Lighting ranges from portable flashlight or drop cord to fluorescent tubing, arranged to provide a high level of illumination.

Arrangement of Stored Materials

The economic desirability of shelving stored materials as compactly as possible was recognized at the start, and the early storage libraries emphasized arrangements which increased the density of volumes per unit of space significantly beyond that found in a conventional book stack. In the main this was accomplished by placing books in one of a half-dozen or so size categories and shelving sequentially within these categories, thereby achieving greater compactness by using the largest number of shelves per section allowable, and by having all the used shelves full at all times. Additional compactness was realized in some cases by shelving some sizes of books on their fore-edges.

This kind of arrangement persists today, but several libraries which have arranged stored books in this manner no longer do so, or plan other arrangements in any future storage activities. The reasons for these departures will be discussed later. Other libraries were found to retain the division into size groupings, but to shelve by subject classification within these groupings. Still others retain the original classified bookstack arrangement for stored materials, but in a storage location. Within this type of arrangement variation exists also. In some cases, where abundance of shelf space exists within the storage facility, shelving is very "loose"; it is hoped that addition ob books to be stored in the future can be accommodated, with only minimal shifting, ultimately to produce a filled stack. In other cases, characteristic of storage libraries where books are sent to storage more or less sporadically, in large groups, several class number sequences may occur in a single storage library.

Records

The problem of altering records in order to show that catalogued materials are in a storage location is attacked in a number of ways. They range, in extremes, from indicating storage status and storage call number on every relevant card in the public catalogue to simply treating the storage facility as another borrower in the circulation record. Between these two extremes are found a variety of procedures offering some intermediate degree of ease and rapidity with which the borrower may learn of the location of material he wants or needs. In some cases where automated circulation procedures are used, a print-out of books charged to storage is updated at intervals and kept in a public location. In other cases, a special manual shelf list of stored books is made available at such locations. In one library where serial runs constitute the major category of stored material, a "Linedex" visible file of serials in storage is provided. It is clear that many libraries are unable or unwilling to include large-scale record alteration in their storage procedures for reasons which will be discussed in a later section.

Service Patterns

Typically, desired materials are retrieved from the storage facility either immediately upon demand, or according to some advertised schedule. Without exception immediate retrieval is practiced by those libraries which store materials within or closely adjacent to the main library. Where there is some considerable distance between the storage facility and the central library pickups from storage are found to be made twice daily, once daily, or (in one case) twice weekly.

Nominally at least, all storage collections are closed-stack collections. However, where user needs involve the transport of materials of considerable bulk, or a search through lengthy files, arrangements are made whereby the user is permitted to go to the storage library or is taken there. In many of the libraries a small number of tables, chairs, etc. is provided for such activities, and, in some cases, transportation is supplied by the library.

Size of Storage Collections

Storage collections ranged in size from approximately 30,000 volumes to 500,000 volumes in the libraries visited. Three are growing rapidly, with annual additions of 47,000 volumes, 35,000 volumes, and 30,000 volumes respectively; at least five are not now actively adding to their storage collections. In two cases storage has been suspended because the storage library itself was full; in other cases storage had been suspended pending remodeling of space or re-examination of storage objectives and processes.

Use Patterns

Few libraries keep very close records of the amount of circulation of stored books, and those figures available are not readily comparable. The few records available appear to support the impression that stored books are relatively little-used. That is to say, no case was found where the number of circulations per year from a storage facility exceeded 5% of the number of volumes held there; and the circulation from most was considerably below this figure. Comparable circulation figures for main libraries are in the range of 40%-100%, although circulation figures among libraries which differ in loan policies are not easily comparable.

There is some indication that circulation from a storage facility increases at more than a linear rate as the facility grows in number of volumes held. This should be expected; as the percentage of the total book stock which is in storage grows proportionally, more and more of the stored books would be asked for.

Staffing and Costs

The number of persons engaged in storage operations varies considerably from library to library, dependent, in large measure, upon the level of storage activity. Some libraries are simply maintaining storage collections, and tasks associated with storage are confined in large part to merely paging the occasional book from a locked storehouse and returning it after use. At the other extreme are found libraries actively selecting material for storage, altering records for material so stored, maintaining staff at the storage facility, and carrying on a relatively brisk circulation activity. In any case, library activities associated with storage are frequently subsumed under other library activities, and isolation of specific storage activities from a general responsibility is difficult, and usually not done.

The major direct costs associated with book storage are undoubtedly those of selection and record alteration. These costs, of course, would vary greatly with the specific procedures adopted in each case. Very few figures were found in this survey concerning these costs. Those found indicate that selection costs can be as high as $2.00 per volume selected, and record-changing costs can be as high as $1.00 and possibly more. Storage is not an inexpensive process.

Selection Criteria

There is general agreement that materials stored should be those of lowest potential future use and greatest physical bulk. The prediction of future use, like all prediction, is subject to some degree of error; there is no infallible method of predicting use. The most feasible indicator of future use appears to be past use, and all libraries utilize this parameter to some extent at least Typically it is used either alone, or in combination with other factors such as date of publication, date of acquisition, or language. The ease with which past use can be ascertained varies with the type of circulation system in use; i.e., the presence or absence of a

date-due slip or some similar instrument. As the number of libraries using automated circulation procedures increases it is to be expected that records generated as a by-product will become more frequently used in establishing the circulation history of stack books.

In certain cases, volume-by-volume examination to ascertain past use is obviated by some type of "block" storage, where whole categories are sent to storage. The blocks used are determined on one or more of a number of bases - age, language of publication, subject, or format, used either singly or in combination. Examples are: serial backfiles (typically in science and technology) beyond a given date; books published in certain recondite languages; books in subject categories in which the university has no current teaching or research interest; university calendars, etc.

The procedural advantages of block storage lie in their avoidance of book-by-book examination and record alteration and the relative ease with which storage status can be advertised.

PLANNING FOR STORAGE

The Setting

It is perhaps not toounfair to characterise the present status of book storage in larger academic libraries on the whole as representing a group of pragmatic responses to ad hoc situations, rather than planned responses to an emerging reality. This reality is that campus libraries can no longer expect to grow infinitely in stock and services without more recognition of the fact that there is wide variation in the extent of use to which their holdings are put, and that it is no longer realistic to hope to provide the same degree of accessibility to every item in their ever-growing stocks. Not always, but typically, some degree of rough separation of materials into classes of more used and less used, by means of storage, is viewed and entered upon as some sort of temporary expedient, and hence more or less unwillingly.

There are reasons for this unwillingness, and many are strong and compelling. They include considerations which are profound and basic to the whole role of academic libraries.

First, large-scale book storage is always detrimental to the level of service aspired to by university libraries. Storage of materials inevitably impedes ready access for selection, consultation, or borrowing to some extent. Most library users will be hampered at one time or another; some will be hampered frequently. Impairment of service involves not only the delay created by shelving in a secondary location from which books can be retrieved on a deferred basis only, but also the loss, to the library user, of all those capabilities conveyed by the term "browsability". He loses the ability to examine the book as to its

suitability for his purposes on the spot; he also loses the opportunity of finding useful material more or less by accident. Moreover, the users most disobliged by storage are likely to be those who use the library to its greatest extent - the teaching faculty and research staff. This is, unfortunately, also the group upon whose favour the library depends in large measure for its influence and support.

Second, the economic advantages of storing books and other library materials are not always clearly demonstrable, or of commanding magnitudes. The acts of selecting materials for storage, changing the library's records of such material, building or preparing and maintaining a storage facility, transferring the books to storage, and giving service from the storage facility are all variable costs; in toto they appear in most cases to be not dramatically smaller than the costs of conventional housing for library materials, as Ellsworth* shows.

Some unwillingness to enter upon large-scale storage is attributable to a feeling that the conditions which point to storage as a necessity in the present or near future may be only transient. Such hopes are of two general types; local and universal. The library faced with stack overcrowding to an extent intolerable now or deemed to become so in two or three years may have hope, perhaps reasonable hope, that funds for a new main library building, or any large library building, will be granted this year or next, bringing relief for another decade at least. These hopes need not be vain; the Harvard College Library found erection of the New England Storage Library the only practical way out of its crowding problems in 1941. Now, upon completion of the Pusey Library around 1975 it anticipates no major stack-crowding problems for the next 12-13 years.

Another set of hopes relates to future developments in librarianship and related technologies. Significant reduction in the bulk of library acquisitions, it is agreed, will be brought about by such means as miniaturization of the materials themselves, transmission of text by electronic means, or by improvements in such embryonic procedures as cooperative storage and inter-library communication networks fostering cooperative acquisition and use of library materials.

Faced with the problem of finding additional space within the library complex to house a rapidly-growing collection the librarian must obviously react by seeking to expand existing library units or add new ones. But he rarely needs only stack space; service demands also continue to proliferate, and the need for increased space to house books and periodicals is normally only a part of a general need for more library space. However, when new or expanded library units are out of the question, or when book storage space is required without the necessity for a concomitant increase in service space, the provision of added book space alone becomes the only practical alternative. It is extremely doubtful that any storage library was ever built or any space occupied for the purpose of book storage, where there was the possibility of constructing a new library unit or enlarging an existing one.

*Ellsworth, Ralph E. The Economics of Books Storage in College and University Libraries. Washington, Association of Research Libraries, 1969.

The creation of a storage facility, made necessary under these conditions, is hence an operation entered into with no great enthusiasm; nonetheless, the need exists for decision making on a great number of questions. It is apparent that the primary constraint, i.e., the necessity for creating a storage facility rather than building a new library or expanding one already in existence, is only the first of a number of constraints which limit the librarian in bringing the storage facility into operation. Decisions must be made on the following major points:

- location
- physical facilities and equipment
- arrangement of stored materials
- means of record alteration to display storage status
- selection of materials to be stored
- service patterns

Reliable data upon which to base his decisions are rare, hard to find, and not always applicable. He operates under many constraints outside his control and in any case must balance economy against service desiderata, always in the light of administrative and political considerations. No doubt all this accounts for the wide variety of storage patterns now in existence. It is obvious also that the areas of decision are by no means independent, and that decisions in one area will color or even determine which decisions are made in another.

Physical Location

Choice of location is involved in most cases only when a new building is to be erected for book storage. The site chosen is inevitably peripheral; the only consideration which makes a case for erecting a storage facility close to the central library is that of convenience of access. This factor must and should be considered relatively unimportant in contrast to such realities as the value of central campus land and the desirability of such land for uses involving the large numbers of people on the central campus. The actual distance of the storage facility from the central library, and whether the location is at the edge of campus or off-campus are matters which are probably not too important and about which the librarians will probably not have very much to say in any case. The actual number of miles between storage facility and main library, if kept relatively small (less than 10 miles) is probably trivial in terms of turn-around time once truck transport becomes necessary.

When existing space can be utilized for book storage in lieu of building a storage structure there is probably no choice involved. Any university administration will be strongly moved to utilize any untenanted space, even if remotely sited and poorly suited for book storage. It is hard to marshal convincing arguments against such usage.

Physical Facilities

Choice on type of shelving to be purchased or constructed is intimately related to choice of shelving arrangement to be used for the materials and choice of method of displaying storage status. As mentioned, the earlier storage libraries were designed to maximize compactness in storage, achieved for the most part by establishment of size categories in which the books were arranged consecutively by time of arrival in the storage facility and hence entirely irrespective of subject classification. For this type of arrangement, fixed shelving and narrow aisles suffice. If subject arrangement is desired, whether conventional or within selected size categories, a greater capacity for adjustment is necessary. There appears to be a trade-off in cost between extreme compactness of storage and the equipment necessary to achieve it. Unless space is extremely short, the use of such devices as rolling shelving, the RandTriever, etc., are probably not economical alternatives, their first costs being extremely high. Their use is probably more effective in order to augment book capacity in an active collection; the use of such expensive devices to house a collection of books selected on the basis of little or no use seems highly questionable.

Arrangement of Stored Materials

In selecting a method for arranging books in a storage collection the librarians is engaged in balancing, all other things being equal, compactness, procedural economy, and user ease. To shelve books serially within a group of size categories maximizes compactness. Books are packed tightly in shelves, shelves are close together in a section, the shelves are filled completely. No stack shifting is ever necessary. Required, however, is the generation of a new book number for every book, and the application of this new book number, in some way, to each book and to some, at least, of the records for each book. It must be borne in mind also, that another "reclassification" will be necessary if books are returned from storage to general housing. Additionally, creation of such a sequence destroys browsability entirely. To maintain the original subject classification unchanged in the storage facility is extravagant in space requirements and necessitates stack shifts at certain times. The amount of record changing required, however, is minimal, and browsability is unimpaired, except for the factor of distance from the library's center.

These are the extreme cases. Intermediate methods can be and are used. The practice, for instance, of shelving by class number within size categories achieves an intermediate degree of compactness while retaining some degree of browsability. The problem of record alteration is also intermediate in magnitude.

It is clear that choice of arrangement is no simple matter; it is likely that decision will be inspired or forced by the nature of the storage space available, and the availability of staff for reclassification and record alteration.

Means of Displaying Storage Status

Whether the librarian goes to the extreme of indicating on every catalogue card that the item listed is in storage (along with its new storage number) or goes to the other extreme of indicating this fact only on a single internal record, unavailable to his borrowers, rests on a number of considerations. The first alternative is extremely demanding of labor; the second considerably less so. Preparation of a special storage shelf-list made up of xerographed copies of pre-existing cards is relatively inexpensive.

The decision here is based primarily on what the librarian is willing to spend in order to make information on the availability of storage books readily accessible. Those who favor the expensive alternative argue that no library user should be put to any greater pains than necessary in order to secure a copy of a stored book. Once a book is stored the potential user is already penalized by the fact that he cannot immediately secure and consult a book in its normal stack location, or, indeed, happen upon the book accidentally while looking for material within a subject area. To penalize him further by requiring him to consult special files (of whose existence he may be unaware) or library staff to ascertain that the book is in storage and available within hours or days is manifestly unfair. But these arguments can be countered. Books are stored because they have little theoretical potential for future use, and stored books are in fact used much less frequently than unstored books in all installations. It may be that the usage rate is depressed because they are less accessible, but it may also be true that some of the recorded borrowing of stored books would not have occurred if the book had been immediately available for inspection and rejection. In any event, the probability of a user finding that a book he wants is in storage is probably much lower than the probability of its being already charged out to another borrower. And no librarian would think seriously of recording circulation in a library catalogue.

It is unfortunate that so many large academic libraries indicate location of books outside the main stack collection by rubber-stamping or typing locations on the catalogue cards presenting those books. Useful as this practice might once have been when university libraries were strongly centralized and branch or divisional libraries small and infrequent, it is singularly uneconomic and inefficient in these days, when half or more of the library's holdings may be in peripheral location. Those libraries which have adopted the use of "location files", i.e., shelf-lists showing locations of titles on a tick-off list, are in a much better position to cope efficiently with storage listings. Their users are already trained to go from the main, added, or subject entry to the location card, and the storage location need be only another location.

Selection of Material for Storage

There seems to be no disagreement that previous use is the best indicator of future use; and that in-library use is reflected possibly by

recorded circulation, the general validity of these propositions is attested to some extent by the relatively low use of stored books wherever storage is practiced. For monographs this practice involves title-by-title examination of books. Such examination is rapidly accomplished where records of past use are present within the books themselves; absence of such data requires recourse to less definite data which are, however, not entirely hidden from the practised eye. Decision on such bases as wear-and-tear, however, is much less definite and efficient. The use of an historical borrowing record generated in the course of automated circulation procedures will be increasingly useful in this connection. Backfiles of serials, especially scientific and technological series, are also prime candidates for storage; selection here also may be done with speed and efficiency.

Storage en bloc of publications considered eligible because they are in subject areas outside the university community's academic interests must be done cautiously. It is very difficult for the librarian to keep up with all the research and avocational interests of the entire academic community, and academic interests, becoming increasingly interdisciplinary, create unexpected demands.

Selection of books for storage may be done continuously or in discrete stages as need arises. The latter practice is the one most frequently encountered. No data have been encountered which would point to any particular advantage of one method over the other.

It must be constantly borne in mind that selection of materials for storage cannot be perfect. Mistakes will be made; the future will be imperfectly predicted. The university librarian who decided to store almost the whole lot of his library's large holdings in Eastern religion, mysticism, yoga, tarot, etc., in 1945 cannot fairly be faulted if these collections are in heavy demand today. What is important is that the mechanism by which materials can move between conventional and storage housing be made as flexible and inexpensive as possible.

Service Patterns

Service from a storage library is of two kinds: retrieval of books requested and provision of facilities whereby library users may examine items at the facility itself. Retrieval is done usually but not invariably as a scheduled service, the actual schedule established through some part of balancing of distance, amount of use, and a subjective evaluation of what constitutes a tolerable time for library users to wait for their books. Where the storage facility is very close to the central library paging of stored books may be considered on a demand basis, and done at once. Whatever added expense is involved in so doing may well be compensated for an increased fund of good will toward the library.

For certain materials and for certain uses it is clearly inefficient to bring the materials from storage to the user. For looking through a series of volumes of a periodical or newspaper or other bulky material in search of an article for which the citation in hand may be corrupt, for

searching through the shelves for material when the books are arranged in subject groupings, etc., it is clearly more economic to bring the reader to the books. This necessity is taken care of by the provision of a small number of reading stations at the facility. Providing them, however, may well involve also the provision of adequate lighting, climatic control, and some staffing. Nevertheless, whatever the cost, it would seem to be a wise expenditure to make these amenities available.

ADMINISTRATIVE ASPECTS

Book storage is in the main unattractive to all concerned - librarian and library user alike. The reasons for the distaste with which it is viewed are both practical and psychological; it is difficult to say which are stronger. In any event, storage is typically approached in a largely negative spirit, as an undesirable necessity at best, an unreasonable imposition at worst. Rarely is it viewed as a natural and perhaps inevitable result of tremendous increase in the rate of publication and the number of users and consumers of these publications both working to increase the rate of library acquisitions; together with the reality of a marked obsolescence of many publications and, perhaps, an increase in the rate of this obsolescence. The librarian forced to store books is in the position of a salesman who doesn't believe in his product very much and who is trying to sell it to a buyer who is either indifferent or hostile.

Relations with Faculty Members

That portion of the university library clientele for whom research constitutes a major activity constitutes the group most likely to have need of the types of materials most usually found in a storage library. Of this group, faculty members constitute the most important constituent; important not only for the work they do, but for the effect of their relationships with the library. Not only is the library usually governed formally by a predominantly faculty committee, but individual faculty members, in their teaching and research activities, determine the library's acquisition and service policies to a large extent. Any strong dissatisfaction they may feel with the library's holdings and operations is rarely silent for very long.

It is probably fair to say that faculty members generally take a dim view of storage, at least as an initial reaction. Their dislike of the whole process can be focussed on two points: they feel that storage causes delay in obtaining books definitely wanted and that storage impedes or destroys the capability for subject searching and browsing. The validity of these objections is not easily demonstrable. True, a book in storage does normally take longer than a book in the stack to get into the reader's hands, but this is true only if the book is resting on the shelves in both cases. But few books in storage are actually asked for (that is why they

are in storage) - it seems more likely that a reader's chances of finding that a particular book he wants is in storage are much lower than his chances of finding that it is on loan to another borrower. The fact that relevant and important documents are sometimes discovered by browsing cannot be denied. It is not clear, however, how frequent such discoveries are or to what extent they could have been made more readily had the library's bibliographical apparatus been more assiduously and knowledgeably used. After all, it is undeniable that an impressive amount of distinguished research has been done in the New York Public Library and in the great libraries of Europe, where browsing is entirely unknown and impossible. The argument that weeding a library collection might increase its usefulness has been made, but is not likely to convince scholars. But such questions cannot profitably be discussed here - the fact remains that storage of library holdings is not generally favored by faculty members.

How should the librarian minimize this discontent? No formula, alas, is available. Two lines of approach suggest themselves. The first and obvious one is to minimize the effects of storage both by making delays as small as possible and by retaining some degree of subject arrangement in the storage facility, adding some provision for library users to work there or at least feel that they can work there if they want to. A paging schedule which is both reasonable and flexible would seem a good investment in faculty relations. In one library, the offer of free, on-demand transportation for faculty members to the outlying storage library was enthusiastically received and relatively little used. Another possible line of approach is that of playing down the very fact of storage. It is unlikely that it can ever be kept a secret, but it is usually easier to defend a fait accompli than to sell an unpopular program. A low profile and a capacity to deliver stored materials readily may obviate the whole problem. It may be that mere avoidance of the word "storage", especially in the designation of the facility, would be a useful strategy. At least one library has changed the name of its storage facility from one using that word to one embodying the name of a posthumous donor.

To minimize faculty discontent by involving them actively in some phase of the operation is also a possible strategy. Several libraries have attempted to use faculty members in the work of selecting materials for storage. Such attempts have not been outstandingly successful. The intrinsic value and historical importance of a book are not necessarily reflected in the demand for its use.

Relations with the Administration

The library of a major university is a significant consumer of university funds, both capital and operational. University library budgets have shown spectacular growth during the last two decades, and although this growth is at a rate not significantly different from that of the total university budgets themselves, the absolute costs are impressive. The fact that library costs are lumped into a single item in most budgets makes their magnitude especially apparent, and hence vulnerable.

vulnerable.

The need for a storage library has at least two major implications for other library budgeting: its possible effects on library acquisitions and its possible effect on the library building program. The high rate and large cost of library book and serial acquisitions have been questioned at many universities, e.g., at the University of California; the charge has been made that money is "wasted" on arcane publications of little practical use. The argument for a storage library, containing as it must the statement that some of the library's holdings get very little use or only rare use, would seem to add weight to this charge. No actual occurrences of this argument have been encountered, but the possibility exists and is feared.

The effect of building a storage library on other segments of the library's building program deservesmention also. Given a finite amount of funds upon which to draw in an environment in which there is always great competition for capital funds, it would seem to follow that establishment of a storage library would have the effect of delaying or deferring other library construction. Moreover, pressures for additional book space are alleviated by the use of a storage facility; arguments for the construction of other libraries would be weakened thereby even when additional book space is only one part of the argument. Many librarians feel that these effects are real and potentially dangerous, but the extent to which they are operative in any university will vary widely. Indeed, one librarian interviewed thought that his operation of a storage library actually aided his building program by dramatizing the library's dire need for additional space.

THE FUTURE - ALTERNATIVES TO STORAGE

Any practical alternatives to storage as a solution to the problems of a library whose collections are growing faster than its capacity to shelve them conventionally remain as alternatives which are not significant at the present time. If the librarian cannot build more libraries or expand existing libraries under his control in order to house his collections, he has no practical alternative at present but to store some of his books outside his libraries, either in existing buildings or in new ones.

But what of the future? Two classes of alternatives may in the future offer relief; in essence they involve either the conversion of library holdings into a less bulky form or the rationalization of library operations in such a way as to reduce individual library collection building by group acquisition, group storage, and intensified cooperative interlibrary services. None of these ideas are particularly novel, and many examples of all of these practices can be found. But they do not, at present, fill the bill and many thorny problems, technological, jurisdictional, legal, financial and psychological remain to be solved before they can be really successful. Solution is not to be expected immediately; book storage will be with us for a long time to come.

CONCLUSION

No set of do's and don'ts can be issued to the university librarian faced with storage. Nothing is more pervasive than the reality that university libraries are remarkably diverse in plant operations, financial resources, history, traditions, and philosophies, or the reality that the librarian's choice of storage style is severely constrained by all these factors.

But the questions "which is best?", "what should I do?" have been asked and will continue to be asked. Imagining a situation where freedom of choice exists, where no constraints upon decision-making are involved, this investigator, on the basis of what he has seen and heard, would view, as optimal, a storage operation with the following characteristics:

1. A specially construction storage building of utmost simplicity, built on comparatively inexpensive land not too far (< 5 miles) from the main library, on an unchoked travel path. The building, except for suitable working areas and a small, well furnished area for readers (10-15 stations), to be as open and as free as possible of columns and other obstructions.

2. Industrial shelving of good quality and having a limited capacity for variable shelf height would be used. Books and other library materials would be shelved in subject classification order within four or five size categories. Shelving would be "loose", with a view toward making large-scale stack shifts only rarely necessary.

3. Storage status would be indicated in the main library by an appropriate tick on a location file shelflist card. The storage library itself would be known as the Fussler Library, the Ellsworth Library, or if a donor is involved, by his name. When the books are sent to storage from a branch or division library a special storage shelflist for that branch should be started. The maintenance of a catalogue at the storage facility itself would be averted if at all possible.

4. Materials would be selected for storage on the basis of recorded use. A simple criterion such as ten years since acquisition or last loan would be used. For serials, back files would be stored in 5 year groups. All groups in which no use had been recorded in any volume over a 10-year period would be stored. Faculty members would be involved in no stage of the selection process; however, any book specifically requested or borrowed from the storage library would be reshelved in the central library upon its return and remain there for another decade. Any book a borrower claims that he uses frequently in the stacks, but does not check out, would be returned also, with no challenge.

5. No library user would wait more than 24 hours for a book requested from storage. If possible, all requests placed during one day would be available at 9:00 a.m. the following day, with special delivery available upon request.